

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of

Yves MONNIER et al.

Corres. to PCT/EP2003/012641

For: WATER TANK ARRANGEMENT, PARTICULARLY IN CONNECTION WITH
A HEATER OR AIR CONDITIONER FOR A MOTOR VEHICLE

TRANSLATOR'S DECLARATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

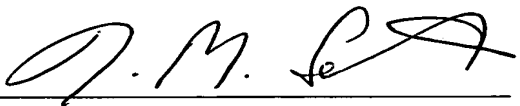
Sir:

I, the below-named translator, certify that I am familiar with both the German and the English language, that I have prepared the attached English translation of International Application No. PCT/EP2003/012641, and that the English translation is a true, faithful and exact translation of the corresponding German language paper.

I further declare that all statements made in this declaration of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful, false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful, false statements may jeopardize the validity of legal decisions of any nature based on them.

October 25, 2004

Date


Name: John Malcolm SMITH
For and on behalf of RWS Group Ltd

**Water box arrangement, in particular in conjunction
with a heating or air conditioning system for a motor
vehicle**

5 The invention relates to a water box arrangement, in particular for a heating or air conditioning system for a motor vehicle, according to the preamble of claim 1.

10 A water box is known which is screwed from below onto the housing of an air conditioning system, that is to say the housing receiving the evaporator of the air conditioning system. In this case, problems often arise with regard to leaktightness, so that water drops occasionally emerge laterally.

15 The object of the invention is to make available a water box arrangement which does not have the abovementioned disadvantage. Furthermore, the production costs are to be reduced.

20 This object is achieved by means of a water box arrangement, in particular for a heating or air conditioning system, having the features of claim 1.

25 According to the invention, the water box is designed to be integrated in the housing, that is to say the water box is part of the housing. Preferably, in this case, at least part of the water box is formed in one piece with part of the housing.

30 Preferably, a two-part design is provided for the water box and housing. This reduces the production costs, since only two molds are required.

35 Preferably, the water box arrangement is divided transversely to the water box and housing. This makes it possible to have simple molds for production. That

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is to say, in the installed state, the division is provided in the vertical direction.

5 The parts are preferably connected by means of a welded or adhesive joint. This allows simple assembly, although other connections or even combinations of various types of connection are also possible.

10 Preferably, a tongue-and-groove connection is provided, with the aid of which the two parts can be positioned exactly. The tongue-and-groove connection is arranged, in particular, in the region of the water box.

15 An evaporator is arranged, in particular above the water box, in the water box arrangement.

20 The invention is explained in detail below by means of an exemplary embodiment, with reference to the drawing. The single figure shows a diagrammatic illustration of a cross section through a water box arrangement.

An air conditioning system 1 has a housing 2 with a water box 3, designated below as a water box arrangement 4. An evaporator 5 is arranged in the water box arrangement 4.

30 The water box arrangement 4 is divided along the sectional line of the figure, so that the water box arrangement 4 consists of two parts which are connected by means of a weld seam. In this case, those regions of the two parts which bear against one another in the region of the water box 3 are designed in such a way that a type of tongue-and-groove connection is obtained, thus ensuring exact positioning and
35 consequently also an exact weld seam.

To produce the water box arrangement 4, the two parts of the water box arrangement 4 are produced in

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corresponding dies. After assembly, during which the evaporator 5 is also inserted and fixed, the two parts are welded together, the weld seam being formed so as to be fluidtight, particularly in the region of the water box 3.

According to a variant which is not illustrated, a tongue-and-groove connection is provided over the entire contact face of the two parts, and the fixing of the two parts to one another takes place by means of an adhesive joint.